

**Final
Environmental Assessment for the
Expansion and Renovation of Dog Kennels
Wright-Patterson Air Force Base, Ohio**



**Wright-Patterson Air Force Base
88th Air Base Wing
Environmental Management Division**

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**FINDING OF NO SIGNIFICANT IMPACT
AND
FINDING OF NO PRACTICABLE ALTERNATIVE
FOR
EXPANSION AND RENOVATION OF DOG KENNELS
WRIGHT-PATTERSON AIR FORCE BASE, OHIO**

Pursuant to the Council on Environmental Quality regulations for implementing procedural provisions of the National Environmental Policy Act (NEPA) (40 Code of Federal Regulations [CFR] 1500-1508), Department of Defense Directive 6050.1 and Air Force Regulation 32 CFR Part 989, the 88 Air Base Wing Civil Engineer, Environmental Management Division has conducted an Environmental Assessment (EA) of probable environmental consequences for providing a properly sized Military Working Dog (MWD) kennel facility at Wright-Patterson Air Force Base (WPAFB), Ohio.

Purpose and Need

As a result of increased demands, the number of MWDs has nearly doubled and existing kennel space is inadequate and undersized. Currently, MWD facility (Building 34053 and the associated dog kennels) are inadequate to meet increased mission requirements due to lack of kennel space, administrative, and veterinary space. By expanding and renovating this facility, adequate office and training space, storage for deployment equipment, kennel capacity, dog kennel configuration, as well as heating, ventilation, and air conditioning would be provided to meet increased mission requirements.

A critical factor impacting siting is the fact the proposed action is to create a 3,355 square feet (SF) facility for MWD. The base could construct a 1,855 SF addition to the existing 1,400 SF MWD building, or they could site and construct a new 3,355 SF facility at a new base location. Adding to an existing building was clearly far more cost-effective than building a brand new facility. The existing dog kennel location complies with siting criteria recommendations even though the existing facility is located approximately 3,400 feet north of the nearest base runway and is located in the 65 – 70 dB noise zone, which is below the criteria limit of 75 dB. Vegetation at the current site, along with earth mounds at the Munitions Storage Area, creates an effective sound buffer. The existing facility has housed the MWDs since its construction in 1948.

Description of Proposed Action and Alternatives

Proposed Action (EA Section 2.1, page 7)

The proposed action is to expand and renovate the dog kennels. The expanded facility would be a one-story structure of approximately 3,355 square feet. This action would include site preparation, expansion, and renovation of the building and kennel areas, and landscaping.

No Action Alternative (EA Section 2.2, page 7)

Under the no action alternative, the dog kennels would continue to be used in their current state and they would not be expanded or renovated. This alternative serves as a baseline against which the proposed action is compared against.

Alternative Considered but Eliminated from Further Analysis (EA Section 2.3, pages 7 - 8)

Each alternative at a minimum had to be cost-effective and located away from urbanized, busy areas. The proposed action and the no action alternative have been designated as the only reasonable alternatives for evaluation. All locations outside the floodplain are urbanized, busy areas. No other significant action or location was deemed as reasonable. Below is the alternative considered by the Air Force but not carried forward for further analysis.

Construct New MWD Facility. This alternative would construct a new 3,300 square foot kennel facility in the vicinity of the recently constructed Combat Arms Training and Maintenance (CATM) site in Area A. This alternative would include site preparation, construction of a new dog kennel facility, and landscaping.

No other alternatives were acceptable due to increase in cost and location. There were no other remote, non-urbanized areas identified outside of the floodplain. For these reasons, alternative one has been eliminated from further considerations and will not be further analyzed in this EA.

Summary of Anticipated Environmental Effects

An EA was conducted to determine potential impacts to human and natural environments resulting from the proposed action and the no-action alternative. A summary of the findings is addressed below with detailed discussion found in Chapter 4 (Potential Environmental Impacts) of the EA. The proposed action would have no environmental impacts on the following issues at the designated project location: ground water resources, cultural resources, wetlands, installation restoration program sites and environmental justice.

Soils (EA Section 4.1, page 20): Under the proposed action, there would be short-term, minor impacts to soil due to potential erosion from earthmoving activities. Soils would also be temporarily disturbed by vehicular and equipment traffic moving into the project area from the nearby road. Impacts would be minor because erosion controls required by base specifications for construction projects would be implemented. The no action alternative would not impact soils or generate any soil erosion activities since no construction or renovation would occur.

Floodplain (EA Section 4.2, page 20): The project area lies within the 100-year floodplain elevation of 814.3 feet above mean sea level. The proposed action would not restrict the flow of floodwater and would not impede water percolation into the soil. There would be minimal impacts due to a minor decrease in floodplain capacity resulting from building expansion. The Miami Conservancy District has evaluated and has no objection to the proposed kennel renovation. The no action alternative would not impact the floodplain since no construction or renovation would occur.

Air Quality (EA Section 4.3, page 21): The proposed action would have short-term, minor negative impacts to air quality due to emissions generated by construction vehicles and activities. These impacts would be minimized by the implementation of dust control measures required in base specifications for all construction projects. The no action alternative would not impact air quality since ground-disturbing activities would not occur.

Water Resources (EA Section 4.4, page 21): Because soil in the vicinity of the dog kennel would be temporarily disturbed, there is a potential for soil erosion into the adjacent drainages leading to the Mad River. This run-off would be controlled following base specifications for construction projects and would be short-term in nature. Because less than one acre of land will be disturbed, a National Pollutant Discharge Elimination System storm water permit is not required.

Natural Resources (EA Section 4.5, page 22): The United States Fish & Wildlife Services (USFWS) confirmed the proposed action project area lies within the range of the eastern massasauga rattlesnake, a federal-candidate species. The massasauga rattlesnake is very mobile and may travel through unsuitable habitat to reach adjacent habitat parcels. The USFWS guidelines for ensuring that no adverse effects occur to the eastern massasauga shall be followed, including examining the project area daily for snakes. If any eastern massasaugas are found, all work shall cease and the USFWS will be notified immediately.

Impacts to surrounding vegetation at the proposed action site would be minor since common vegetation would be temporarily disturbed during construction activities. The no action alternative would have any impact on natural resources since ground-disturbing activities would not occur.

Noise (EA Section 4.6, pages 22 – 23): The proposed action and no action alternative would have long-term, minor impacts from noise to the adjacent FAMCAMP from barking dogs. There would be minor impacts to the military working dogs from aircraft noise, which is minimal at night when the dogs are sleeping in the facility. There would be short-term noise impacts from the proposed action on ambient noise from construction equipment and activities.

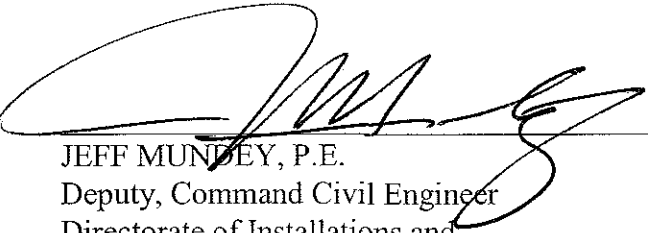
Health and Safety (EA Section 4.7, pages 23 - 24): Under the proposed action and the no action, there are minor fire/explosion hazards due to proximity of dog kennels to the munitions storage area and explosive laden vehicles. Severity would be dependent upon the circumstances of these events. Risks could be minimized by implementing specific design features. There are minor impacts from flooding of dog kennels due to location in 100-year floodplain. Severity would depend on frequency and flood conditions. Impacts to personnel and dogs would be minimized by established evacuation procedures.

Public Notice: A public notice was posted in the *Dayton Daily News* on 25 Aug 04. The comment period was held from 25 Aug-24 Sep 04. No public comments were received.

Finding of No Practicable Alternative (FONPA): Taking the above information into

consideration, pursuant to Executive Order 11988, *Floodplain Management*, and the authority delegated by Secretary of the Air Force Order 791.1, I find there is no practicable alternative to conducting the proposed action within the floodplain and the proposed action includes all practicable measures to minimize harm to the environment. This finding fulfills the requirements of the referenced Executive Order 32 CFR 989.14 for a Finding of No Practicable Alternative.

Finding of No Significant Impact (FONSI): Based on my review of the facts and the environmental analysis contained in the attached EA as summarized above, I find the proposed action to expand and renovate the existing dog kennels in Area C will not have a significant impact on the human or natural environment, therefore, an environmental impact statement is not required. This analysis fulfills the requirements of the NEPA, the President's Council on Environmental Quality, and 32 CFR Part 989.



JEFF MUNDAY, P.E.
Deputy, Command Civil Engineer
Directorate of Installations and
Mission Support

2/5/07
DATE

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APPENDICES

- Appendix A Correspondence with the Ohio Department of Natural Resources
- Appendix B Correspondence with the U.S. Fish & Wildlife Service
- Appendix C Correspondence with the Miami Conservancy District

LIST OF ACRONYMS

AFI	Air Force Instruction
AFMAN	Air Force Manual
AFPD	Air Force Policy Directive
AFRIMS	Air Force Restoration Information Management System
AICUZ	Air Installation Compatible Use Zone
APZ	Accident Potential Zone
bgs	below ground surface
BHPO	Base Historic Preservation Officer
BMP	Basewide Monitoring Program
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
CO	carbon monoxide
dB	decibel
DoD	U.S. Department of Defense
EA	environmental assessment
EIAP	Environmental Impact Analysis Process
EIS	Environmental Impact Statement
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FICON	Federal Intragency Committee on Noise
ft	feet
FY	Fiscal Year
IB	Inhabited Building
ICI	International Consultants Incorporated
ICRMP	Integrated Cultural Resources Management Plan
IRP	Installation Restoration Program
MCD	Miami Conservancy District
mg/kg	milligram/kilogram
µg/L	micrograms/liter
MSA	Munitions Storage Area
MSL	mean sea level
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NOI	Notice of Intent
NO _x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
O ₃	ozone
OAC	Ohio Administrative Code
ODNR	Ohio Department of Natural Resources
OEPA	Ohio Environmental Protection Agency
ORC	Ohio Revised Code

LIST OF ACRONYMS (continued)

OU	Operable Unit
PM	Particulate Matter
PSD	Prevention of Significant Deterioration
RAPCA	Regional Air Pollution Control Agency
SAIC	Science Applications International Corporation
SCS	Soil Conservation Service
SF	square feet
SFS	Security Forces Squadron
SIP	State Implementation Plan
SO ₂	sulfur dioxide
tpy	tons per year
USAF	U.S. Air Force
USACOE	U.S. Army Corps of Engineers
USC	United States Code
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VOC	volatile organic carbon
WPAFB	Wright-Patterson Air Force Base

1.0 Purpose and Need For Action

1.1 Proposed Action

This Environmental Assessment (EA) was developed to assess and present the potential environmental consequences associated with providing a properly sized Military Working Dog (MWD) kennel facility for the 88 Security Forces Squadron (SFS) at Wright-Patterson Air Force Base (WPAFB), Ohio.

1.2 Need for the Action

The purpose of the proposed action is to create a facility of approximately 3,300 square feet (SF) that will contain adequate office and training space, storage for deployment equipment, kennel capacity, dog kennel configuration, and heating ventilation and air conditioning. A larger facility would allow the military working dog section to meet its increased mission requirements. After the attacks of September 11th, the security forces have had increased demands placed on them for increased base security, number of patrols and inspections, and they, in turn, have relied more on MWDs for assistance, especially in securing areas and ensuring there are no explosive threats on the installation. As a result of the increased demands, the number of military working dogs has nearly doubled, and the existing six kennels is insufficient. A total of 12 kennels is now required to house the increased canine work force. This trend is occurring throughout the Department of Defense. According to an article in the 12 January 2005 edition of the *Arizona Daily Star*, "Since Sept. 11, 2001, the Pentagon has more than doubled the number of dogs being trained each year- from about 200 to more than 500 – at the nation's military dog school at Lackland Air Force Base." With their highly sensitive noses, these dogs are ideal for sniffing out bombs and securing areas for special events.

This EA discusses the proposed action by the 88 Security Forces Squadron (SFS) of expanding and renovating Facility 34053 and the associated dog kennels (i.e. the security forces military working dog facility) located in Area C of WPAFB. The current 1500 square foot facility is not adequate for security forces to perform their mission due to lack of administrative space, lack of kennel space, and inadequate heating and air conditioning systems. Design guidelines for Military Working Dog (MWD) facilities have changed substantially since the current facility was constructed, and the size of the kennel run for each dog has been increased. In addition, these are now becoming truly integrated facilities, so there are specific guidelines for space requirements for administrative functions, such as the kennel master office (132 SF), trainer office (240 SF), handler office (210 SF), veterinary treatment functions, such as the exam room and two isolation kennels, tack room, food storage room, and various support functions, such as the multi-purpose room (196 SF), which serves as a conference room, classroom, and break room, the latrine/shower/lockers (206 SF), and the mechanical room. In addition, the current facility contains only 100 SF of office space, which is extremely inadequate for the nine K-9 personnel who must share this office.

1.3 Objective of the Proposed Action

Facility 34053 and the associated dog kennel is located on Mitchell Drive in Area C just north and adjacent to

Bass Lake (Figures 1.1-1 and 1.1-2). The proposed action is to construct an addition to the existing facility so there would be a total of 1,464 SF in office space (to include offices, veterinary, administrative support, HVAC, and associated functions) and 1,891 SF in kennel space. The dog kennels would be air conditioned indoor space. Each kennel would be provided with a separate exterior dog run. Although the final design is not yet complete, the facility would be configured to include the desired components within an approximately 3,355 SF structure. The existing facility is 1,500 SF, so the addition would be approximately 1,855 SF in size.

In order to address the lack of an adequate MWD facility, this EA explores different ways to provide security forces with a MWD facility that would allow them to perform the mission. Options include renovation of the existing MWD facility, constructing a new facility at another base location or utilizing an existing building on base for MWD operations.

1.4 Decision to be Made

The purpose of this EA is to analyze the proposed action and its alternatives and determine whether to implement the proposed action (i.e., expansion and renovation of the dog kennels) so that a Finding of No Significant Impact and of No Practicable Alternative (FONSI/FONPA) can be determined. The EA will provide the decision maker and the public with information required to understand the short-term and long-term consequences of the proposed action and its alternatives. Where applicable, mitigation measures will be recommended to minimize adverse impacts. The necessity for the preparation of an Environmental Impact Statement (EIS) will also be determined.

1.5 Scope of Environmental Analysis

Aspects of the proposed action with potential environmental impacts include:

- Soils
- Floodplain
- Air quality
- Surface water quality
- Natural resources
- Noise
- Health and safety
- Socioeconomics
- Transportation/Traffic
- Environmental justice
- Environmental toxics

These issues will be particularly emphasized as part of this environmental impact assessment analysis.

Several resources were not analyzed and include the following:

- Threatened and endangered species
- Wetlands
- Groundwater
- Installation Restoration Sites
- Cultural resources

These resources are not impacted by the Proposed Action because the resources are not found or do not occur within the site.

1.6 Siting Criteria

The 14 Jun 02 publication entitled “Design Guide for Military Working Dog Facilities” contains specific guidance for siting and design of facilities such as this. In accordance with this Guide, “kennels should not be located in urbanized, busy areas of the base. Noise from surrounding areas not only affects the MWD’s rest, but the noise from the MWDs creates a distraction to people working in the area. If unavoidable, incorporate visual and noise barriers such as berms/screen walls to mitigate the distractions. Avoid sites where the time weighted overall sound pressure level for any 24-hour period exceeds 75 adjusted decibels. Ideally all MWD facilities should be located on the same site to avoid excessive travel time and transportation requirements between areas.”

There are very specific design criteria for these facilities, which ultimately impact the siting as well. For example, a MWD complex is supposed to consist of “kennels, support building, obedience course, exercise area, MWD break area, exterior storage and parking/drives/walks.” There are specific minimum space requirements for each of these areas, such as the kennel runs, which were “increased to 8 ft by 10 ft. This increase from past guidance resulted from the numerous documented injuries to MWDs particularly in the tail area. Runs should be arranged such that openings are staggered in order to avoid MWDs facing each other across the corridor.” Specific requirements are also outlined for special use areas, such as a veterinary treatment room, which is used for routine biannual physical exams, emergency first aid, surgical recovery room, and quarantine area.

A critical factor impacting siting is the fact that the proposed action is to create a 3,355 SF facility for MWD. The base could construct a 1,855 SF addition to the existing 1,400 SF MWD building, or they could site and construct a new 3,355 SF facility at a new base location. Adding to an existing building was clearly far more cost effective than building a brand new facility. The existing dog kennel location complies with siting criteria recommendations even though the existing facility is located approximately 3400 feet north of the nearest base runway and is located in the 65 – 70 dB noise zone, which is below the criteria limit of 75 dB. Vegetation at the current site, along with earth mounds at the Munitions Storage Area, creates an effective sound buffer. The existing facility has housed the MWDs since its construction in 1948.

1.7 Regulatory Requirements

This EA was prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, 40 Code of Federal Regulations (CFR), Part 1500, the Council on Environmental Quality (CEQ) regulations implementing NEPA, and the U.S. Air Force (USAF) Environmental Impact Analysis Process (EIAP) [32 CFR Part 989].

Statutes and regulations to which the Air Force must comply are summarized in Table 1.4-1. The regulatory requirements are listed under each appropriate category in Section 3.0. There are no permits or notices required for this proposed action since the preliminary design indicates the footprint of the proposed building and associated dog kennels would be approximately 0.08 acres and no new water mains are required to be installed.

Table 1.4-1
Summary of Applicable Regulations
for the Proposed Action and Alternative
Page 1 of 2

Natural Resources

- AFI 32-7064, Integrated Natural Resource Management Plan
- Endangered Species Act of 1973, 16 USC §1531 et seq.
50 CFR Part 200
50 CFR Part 402
33 CFR Parts 320-330
- Executive Order 11990 – Protection of Wetlands
- 40 CFR, Part 6, Appendix A – Protection of Floodplains
- 40 CFR, Part 6, Appendix A – Protection of Wetlands
40 CFR, Part 230 – Protection of Wetlands
40 CFR, Parts 320-330 – Protection of Wetlands
- Clean Water Act, Section 404
- Ohio Revised Code (ORC) 1531.25, Protection of Species Threatened with State-Wide Extinction

Land Use

- AFI 32-7063, Air Installation Compatible Use Zone (AICUZ) Program

Cultural/Historic Resources

- AFI 32-7065, Cultural Resources Management
- National Historic Preservation Act of 1966, as amended
- 36 CFR Part 800 – Protection of Historic and Cultural Properties

Air Quality

- Clean Air Act – 42 U.S.C §§ 7401-7671
- National Ambient Air Quality Standards (NAAQS) – 40 CFR §81.34 and §81.336
- OAC 3745-17 Particulate Matter Standards
- OAC 3745-25 Emergency Episode Standards
- OAC 3745-15-06 *de minimis* air contaminant source exemption

Noise

- 29 CFR 1910.95 Occupational Noise Exposure

Wastewater/Stormwater

- 40 CFR Part 122.26 Storm Water Discharges
- OAC 3745-31 Permit to Install New Source of Pollution
- OAC 3745-33 Ohio National Pollutant Discharge Elimination System (NPDES) Permit
- OAC 3745-38 Notice of Intent (NOI)
- City of Dayton Sewer Use Ordinance (September 21, 1994).

Table 1.4-1
Summary of Applicable Regulations
for the Proposed Action and Alternatives
Page 2 of 2

Health and Safety

- 29 CFR 1910.133 Eye and Face Protection
- 29 CFR 1910.1025 Occupational Safety and Health Standards: Lead
- 29 CFR 1910.1200 Hazard Communication
- 29 CFR 1910.34 Respiratory Protection
- 29 CFR 1910.135 Occupational Head Protection
- 29 CFR 1910.136 Occupational Foot Protection
- Subpart Z Toxic and Hazardous Substances
- Occupational Safety and Health Act of 1970, revised 1978 – 29 U.S.C. § 651 *et seq.*
- 29 CFR 1926 Safety and Health Regulations for Construction
- 29 CFR 1926.62 Occupational Health and Environmental Controls: Lead
- Air Force Manual (AFMAN) 91-201, Explosive Safety Standards

2.0 Description of Proposed Action and Alternatives (DOPAA)

2.1 Proposed Action: Expansion and Renovation of Dog Kennels

The base SFS proposed action is to expand and renovate the existing dog kennels. The existing facility is a one-story structure of approximately 1,500 square feet (SF) located along Mitchell Drive (Figure 2.1-1). The expanded facility would be a one-story structure of approximately 3,300 SF. The structure would consist of a concrete foundation and floor slab, masonry walls, and roof. The facility would include a training room, offices, storage areas, a veterinary room, a kennel area, and isolation kennels.

Activities associated with the project would include site preparation, renovation and expansion of the existing building and kennel areas, and landscaping. Site preparation activities would begin with stripping the topsoil in the area of the expansion, followed by excavation and compaction of the soil. The site would be graded so that storm water runoff would flow to existing drainage. No new utility lines would be added; if necessary, any additional requirements would be completed by adding on to the existing utilities.

2.2 No Action

Under the No Action alternative, the dog kennels would not be expanded or renovated and no new facility would be constructed. This alternative will serve as a baseline against which the Proposed Action can be compared.

2.3 Alternative Considered but Eliminated from Further Analysis

The following alternative for the construction/relocation of the proposed Military Working Dog facility was identified, but is cost prohibitive and does not meet the siting criteria defined in section 1.6:

- Construct new facility near F/10296 (Alternative 1)

Alternative one proposes the construction of a new MWD facility in the vicinity of the recently constructed Combat Arms Training and Maintenance (CATM) site in Area A. The new facility would be configured much like that of the proposed action and would consist of a one-story structure of approximately 3,355 SF. The structure would consist of a concrete foundation and floor slab, masonry walls, and roof. The facility would include a training room, offices, storage areas, a veterinary room, a kennel area, and isolation kennels. This location is located north of Communications Boulevard on Newark Street. Construction of a new 3300 SF facility at the alternative one site will cost in excess of \$750K requiring congressional approval delaying the start and completion of the facility. The addition to the existing kennel facility is estimated to cost \$559K and therefore does not qualify as a Military Construction (MILCON) project. Implementing alternative one would be cost prohibitive and could exceed funding approval limits.

Alternative One is situated in an area classified as Industrial and the areas adjacent to the proposed location of

Alternative One are classified Community Commercial (Woolpert, 2001). The location of Alternative One is considered an urbanized, busy area. Noise in urbanized, busy areas keeps the dogs awake during the night and degrades the dogs' capability to perform their mission. The site for Alternative One occurs in the 65-to 70 dB noise zone (WPAFB, 1995). The site is located near Gate 15-A adjacent to the newly constructed CATM. Construction of the new CATM was completed in 2004 and was designed to reduce noise from the facility as much as possible. Design features at the CATM included sound transmission barriers inside the facility such as absorptive acoustical surfacing on the unpainted interior masonry walls. While it is possible to hear gunshots from the parking lot of the facility, impacts to noise outside the facility are expected to be minimal to occupants in nearby buildings. MWDs would be subjected to intermittent noise from operation of the CATM but more importantly, they would experience a more constant source of noise from traffic utilizing Gate 15-A as well as from human activities in the vicinity from the Child Care Center, the Hope Hotel. Traffic volume in the vicinity of Gate 15-A is heavy, with an estimated average daily traffic count of 6,149 westbound on Skeel Avenue near Communications Boulevard in 1994 (ICI/SAIC, 1995). Relocation of the MWD kennel facility to an urbanized, busy area would reduce the Security Forces' ability to meet mission requirements.

No other alternatives were acceptable due to increase in cost and location. There were no other remote, non-urbanized areas identified outside of the floodplain. For these reasons, alternative one has been eliminated from further considerations and will not be further analyzed in this EA.

2.4 Comparison of Environmental Consequences Between Alternatives

The impacts associated with the Proposed Action and the No Action alternative are summarized in Table 2.4-1. The information includes a concise definition of the issues addressed under each alternative and the environmental impacts associated with each alternative. The analysis is based on information discussed in detail in Chapter 4.0, Potential Environmental Impacts.

Table 2.4.1
Comparative Summary of Environmental Consequences

1 of 4

Resource/Area	Alternative: No Action	Proposed Action
Vegetation	Short Term: No impact. Long Term: No impact.	Short Term: Minor impacts from construction activities. Long Term: Minor impact due to loss of potential green space.
Wildlife	Short Term: No impact. Long Term: No impact.	Short Term: Negligible impact from construction activities. Long Term: No impact.
Surface Water	Short Term: No impact. Long Term: No impact.	Short Term: Minor impact from increased surface runoff during construction activities. Long Term: No impact.
Floodplain	Short Term: No impact. Long Term: No impact.	Short Term: Minimal impacts due to permanent facility in floodplain. Long Term: Minimal impacts due to permanent facility in floodplain.
Land Use	Short Term: No impact. Long Term: No impact.	Short Term: No impact. Long Term: No impact.

Table 2.4.1
Comparative Summary of Environmental Consequences

2 of 4

Resource/Area	Alternative: No Action	Proposed Action
Geology and Soil	Short Term: No impact.	Short Term: Minor impacts from excavation of soil during construction phase. Impacts would be minimized with erosion control methods implemented during construction.
	Long Term: No impact.	Long Term: No impact.
Air Quality	Short Term: No impact.	Short Term: Minor impact from emissions generated during construction activities that would be minimized by dust control measures.
	Long Term: No impact.	Long Term: No impact.
Noise	Short Term: No impact.	Short Term: Minor impacts on ambient noise from construction activities.
	Long Term: No impact.	Long Term: Minor impact on adjacent FAMCAMP from barking dogs. Minor impact on MWDs from aircraft noise, which is minimal at night when dogs are sleeping in the facility.

Table 2.4.1
Comparative Summary of Environmental Consequences

3 of 4

Resource/Area	Alternative: No Action	Proposed Action
Health & Safety	Short Term: No impact. Long Term: No impact.	Short Term Potential impacts from flooding of dog kennels due to location in the 100-year floodplain that would be minimized by established evacuation procedures. Long Term: Potential impact from flooding due to location in 100-year floodplain that would be minimized by established evacuation procedures
Socioeconomics	Short Term: No impact. Long Term: No impact.	Short Term: Nominal impact on local economy from revenue generated by construction project. Long Term: No impact.
Transportation & Traffic	Short Term: No impact Long Term: No impact.	Short Term: Minor impacts from disruptions due to construction traffic. Long Term: No impact.
Environmental Justice	Short Term: No impact. Long Term: No impact.	Short Term: No impact. Long Term: No impact.

Table 2.4.1
Comparative Summary of Environmental Consequences

4 of 4

Resource/Area	Alternative: No Action	Proposed Action
Environmental Toxics	Short Term: No impact.	Short Term: Minimal impact due to disturbance of lead paint and asbestos containing materials from expansion and renovation of the existing facility.
	Long Term: No impact.	Long Term: No impact.
Cumulative Impacts	Short Term: No impact.	Short Term: No impact.
	Long Term: No impact.	Long Term: No impacts to 100-year floodplain. New construction is offset by overall facility demolition.

3.0 Affected Environment

Section 3.0 identifies existing environmental conditions at the subject site that could be affected by the proposed action and the no action alternative. Where applicable, information from the *Final Environmental Assessment for Development of Bass Lake Recreational Area at Wright-Patterson Air Force Base* (USAF, 1999) is referenced.

3.1 Soils

According to the U.S. Department of Agriculture (USDA) Soil Conservation Service (SCS) soil survey of Greene County, Ohio (USDA-SCS, 1978), soils at the dog kennel facility are of the Sloan-Fill land complex to a depth of 0 to 5 feet below the ground surface. This complex is made up of nearly level soil on floodplains where as much as 50 percent of the original soil has been covered by fill. The fill areas have 3 to 5 feet (ft) of fill material, mostly Sloan soil and some Westland and Linwood soils. The fill material is generally mineral soil, organic material, and other organic or inorganic debris from various sources. The parts of the mapping unit that are not covered by fill are mostly Sloan silty clay loam.

3.2 Floodplain Issues

WPAFB is located within the Mad River valley of the Great Miami River Basin. The Mad River empties into the Great Miami River near downtown Dayton, approximately 3 miles downstream (southwest) of the site. The existing dog kennel facility is at an elevation of approximately 810 ft mean sea level (MSL), which is within the Mad River 100-year floodplain elevation of 814.3 ft MSL (ICI/SAIC, 1995). The 100-year floodplain elevation was determined by the Army Corps of Engineers using the HEC-1 Hydrograph model with Bulletin 71 rainfall data and the incorporation of the added storage from the CJ Brown Reservoir just northeast of Springfield, Ohio (WPAFB, 1994).

3.3 Air Quality

According to the Clean Air Act (CAA), National Ambient Air Quality Standards (NAAQS) are to be set by the United States Environmental Protection Agency (USEPA). The NAAQS are designed to limit pollution in the air anywhere in the United States in order to protect human health and public welfare. The NAAQS have been established for six criteria pollutants, which include sulfur dioxide (SO₂), nitrogen oxides (NO_x), particulate matter (PM), carbon monoxide (CO), ozone, and lead. Sections 107 and 110 of the CAA give the responsibility to each state of developing a set of regulations that implement the NAAQS, called State Implementation Plans (SIPs).

The OEPA is responsible for developing the SIPs for Ohio and implementing and enforcing the environmental regulatory requirements outlined by USEPA, including monitoring for criteria pollutants to determine if the levels meet the criteria pollutant attainment standards. Currently, the areas listed above, including WPAFB, are in

attainment for all criteria pollutants, except ozone. WPAFB is located in the Dayton/Springfield area for ozone NAAQS, which covers Clark, Greene, Miami and Montgomery counties. On April 15 2004, USEPA designated the Dayton/Springfield area as “basic non-attainment” for the 8-hour ozone NAAQS. This designation was published in the 30 April 2004 Federal Register notice [69 FR 23858]. USEPA also published the Final Rule to Implement the 8-hour Ozone National Ambient Air Quality Standard – Phase 1 on 30 April 2004 [69 FR 23951]. The publication of the attainment and non-attainment area designations has triggered the clock for Ohio EPA to develop a revision to their SIP.

Section 176(c) of the CAA requires that before a Federal entity takes an action, it must make a determination that the proposed action will not interfere with the SIP or the State’s ability to attain and maintain the NAAQS. In 1995, Congress limited the application of section 176(c) to non-attainment and maintenance areas only. USEPA established *de minimis* emissions levels and exempted certain actions. USEPA also allowed Federal entities to develop their own list of actions, which are presumed to conform. For non-exempt actions that increase emissions above the *de minimis* levels, the Federal agency must demonstrate that the action will conform with the SIP or will not cause or contribute to any new violation of any standard in any area; interfere with provisions in the applicable SIP for maintenance of any standard; increase the frequency or severity of any existing violation of any standard; or delay timely attainment of any standard or any required interim emissions reductions or other milestone.

USEPA is currently reviewing the general conformity program and may revise the regulations, as appropriate with respect to the 8-hour standard. USEPA is proposing to retain the existing *de minimis* emission levels for volatile organic carbon (VOC) and NO_x (both ozone precursors). The existing *de minimis* emission levels do not include the “Basic” non-attainment category. The *de minimis* emission levels for “Moderate” non-attainment area are 50 tons per year for VOCs and 100 tons per year for NO_x. It has been assumed that the “Basic” category thresholds will be no more restrictive than the “Moderate” category.

While USEPA has designated the Dayton/Springfield area as “basic non-attainment” area, the requirements of General Conformity have been deferred by one year from the effective date of 15 June 2004. If the proposed action is started prior to 15 June 2005, the requirements of General Conformity shall not apply based on “non-attainment” designation. However, as the Dayton/Montgomery area was considered a “moderate maintenance” area prior to the recent “non-attainment” area designation, the requirements of General Conformity shall apply based on the “moderate maintenance” designation.

In both cases, the *de minimis* levels are the same and thus, the timing of the project will not impact this analysis.

An air permit would not be required for the construction and operation of the dog kennels as it meets the “*de minimis*” air contaminant source exemption. The exemption is addressed under Ohio Administrative Code (OAC) 3745-15-06.

3.4 Water Resources

Groundwater in the vicinity of the Area C kennel facility occurs under water table conditions at depths ranging from approximately 6 to 10 feet below ground surface (bgs). Although the groundwater is shallow, construction activities will not have an impact. The aquifer in Area C is part of the Buried Valley Aquifer system, which is designated as a sole source aquifer. Groundwater is recharged through infiltration of precipitation, groundwater flow into the area, and infiltration of surface water from Bass Lake. The water table elevation and groundwater flow direction through this region of WPAFB are shown on Figure 3.4-1 and illustrate that groundwater flow is westward toward the Mad River.

The surface water features in this portion of Area C include man-made ditches and lakes, and naturally occurring drainage channels (rivers, creeks and streams). The primary surface water features in this portion of Area C are Bass Lake and the Mad River. Bass Lake was originally one of the gravel pits mined for construction of the West Ramp area. After construction was complete, the gravel pit was filled with water. The lake has a surface area of 42 acres with a maximum depth of 17 feet and an average depth of 12 feet (USAF, 1999). Bass Lake receives water from precipitation, surface water runoff and storm water from the surrounding area, and groundwater.

Storm drainage in Area C flows through a combination of surface drainage and storm drains and ultimately discharges into tributaries to the Mad River. The Mad River flows in a southerly direction, toward the City of Dayton. The existing dog kennel facility is included in NPDES Outfall No. 017

The current plans for utilities at the existing dog kennel facility are to tie into existing water supply lines (WPAFB, 2004c). No new water mains would be added. Given these plans, a “Permit to Install” would not be required. In addition, permits would not be required for discharges into storm sewers and/or for erosion control. Under the Phase II rule of Storm Water Discharge regulations (40 CFR 122.26), a permit would be required for a construction site involving land disturbance of more than one acre of land. The Phase II rule became effective on 10 March 2003. Preliminary design indicates the footprint of the building and associated dog kennels to be approximately 3,300 square feet (SF) or 0.08 acres, which is less than one acre.

3.5 Natural Resources

The location of the existing dog kennels is in an area designated by the base as “improved maintained” grounds (e.g., lawns and landscaped areas). Vegetation in this area consists primarily of grasses, with few weeds (Figure 2.4-1). Dominant species include tall fescue (*Festuca arundinacea*), Kentucky bluegrass (*Poa pratensis*), dandelion (*Taraxacum officinale*), and clover (*Trifolium pratense* and *T. repens*) (WPAFB, 2001).

According to the Site-wide Characterization Report (ICI/SAIC, 1995), resident mammals commonly found in disturbed areas, such as the location of the existing dog kennels include eastern cottontail rabbit (*Sylvilagus floridanus*), chipmunk (*Tamias striatus*), opossum (*Didelphis virginiana*), and gray squirrel (*Sciurus carolinensis*). Birds, such as pigeon (*Columba leucocephala*), killdeer (*Charities vociferous*), English sparrow (*Passer domesticus*), mockingbird (*Mimus polyglottos*), and red-winged blackbird (*Agelaius phoeniceus*) are also often observed in this area type.

Copies of correspondence with the Ohio Department of Natural Resources (ODNR) and the U.S. Fish & Wildlife Service (USFWS) regarding the potential occurrences of threatened and endangered species in the project areas are provided in Appendices A and B, respectively. As indicated by ODNR, the upland sandpiper and the Butternut (*Juglans cinerea*, a tree from the Walnut Family) are located within one-half mile of the existing dog kennels (see Appendix A). These species are designated as threatened and potentially threatened, respectively, in Ohio. Neither of these species is found in the immediate vicinity of the project sites. The USFWS confirmed that the proposed action project area lies within the range of the federal-listed endangered Indiana bat, eastern massasauga, and the clubshell. It is noted that the project area is not likely to affect the clubshell due to the location of the site and that due to the type of habitat present on the site, it is unlikely that the project area provides suitable habitat for the Indiana bat. (Appendix B). The USFWS believes that suitable habitat for the massasauga does not exist on the project site. However, the snake is very mobile and may travel through unsuitable habitat to reach adjacent habitat parcels. The project designers shall notify all people that may be working on the project (including contractors, engineers, machine operators, etc.) that the eastern massasauga exists on WPAFB, that the snake is poisonous and should not be handled, and that the snake is a protected species and should not be harmed or killed. The project site should be examined daily for snakes, and if any eastern massasaugas are found, all work shall cease and the USFWS shall be contacted immediately (Appendix B). Provided these guidelines are followed, the project, as proposed is not likely to adversely affect the eastern massasauga.

3.6 Noise

To address both noise and safety, the Department of Defense (DoD) required military departments to establish an Air Installation Compatible Use Zone (AICUZ) program. The goal of AICUZ is to promote compatible land use on and off base to minimize noise complaints and safety hazards. According to the AICUZ study, the existing dog kennels are located in the 65 to 70 decibel (dB) noise zone.

Typical noise sources in and around the existing dog kennels include aircraft and human activities. Military (and civilian) aircraft operations are the existing primary sources of noise. Currently, the 445th Airlift Wing is located just west of the dog kennels. This unit services the C-141B Starlifter aircraft which use the active runway located south of the kennels. The C-141B aircraft is being replaced by the C-5 aircraft. Although the sound exposure levels from the C-5 are higher than the C-141B (118.2 dB versus 115.4 dB at 200 ft), there will be fewer aircraft

and fewer operations (e²M, 2004). Once the conversion to the C-5 aircraft is completed, it will not be necessary to update the AICUZ noise contours (e²M, 2004; WPAFB, 2004d). The AICUZ study was based on a maximum mission scenario.

Another noise source in the area of the proposed action is the FAMCAMP. There are 54 trailer sites available for campers. Rules regarding noise in the campgrounds are strictly enforced; campers must keep noise down after 10:00 pm from Sunday through Thursday and 11:00 pm on weekends (WPAFB, 2004a). Conversely, those camping in the FAMCAMP area may also be exposed to noise, i.e. barking dogs, from the kennels. While there were intermittent complaints in the past regarding dogs barking, this has not been a problem in the past two years, even though the number of dogs housed there has nearly doubled since 9/11.

3.7 Health and Safety

There are four major categories of health and safety issues associated with the proposed action (expanding and renovating the existing dog kennels): worker safety during construction activities, plan flight paths, munitions storage area, and floods.

Worker safety concerns during construction activities would primarily include hazards associated with physical hazards (e.g., heavy equipment and vehicles, power tools) and potential hazardous materials (e.g., fuels).

The Air Force AICUZ program is intended to reduce the potential for aircraft mishaps in populated areas. As a result of this program, WPAFB has altered basic flight patterns to avoid heavily populated areas. In addition, airfield safety zones were established under AICUZ to minimize the number of people who would be injured or killed if an aircraft crashed. Three safety zones are designated at the end of all active runways: Clear Zone, Accident Potential Zone (APZ) I, and APZ II. The Clear Zone represents the most hazardous area. Although administrative uses (industrial, business services, manufacturing) are permitted in the APZs, “people-intensive” uses (e.g., auditoriums, classrooms) are discouraged in these areas. According to AFI 32-7063, all new construction is required to comply with the AICUZ. The existing dog kennels site is located outside of all APZs.

The base Munitions Storage Area (MSA) is just south of the existing dog kennels. Under AFMAN 91-201, an Inhabited Building (IB) Distance is the minimum distance required to protect non-explosive related facilities and personnel. The IB distances for the existing dog kennels are shown in Figure 3.9-1. The dog kennels are outside of current Explosive Safety Zones for the base munitions storage area (WPAFB, 2004b).

The existing dog kennels are in the floodplain at an elevation of approximately 810 MSL, which is within the 100-year floodplain (814.3 MSL). Therefore, there is the potential for flooding in the area. In case of flooding, an evacuation plan would be in place.

3.8 Land Use

WPAFB is divided into three areas: A, B, and C. Area A contains primarily administrative activities; Area B focuses on research and development; and Area C is dominated by airfield operation, maintenance, and civil engineering activities. The base encompasses 8,145 acres and is classified as non-industrial with mixed development. Ten major land use categories have been identified on WPAFB (BHE/IT, 1999). The existing dog kennels are situated in an area currently classified as Open Space. The areas adjacent to the site are classified as Industrial and Outdoor Recreation.

As stated in Section 3.7, the existing dog kennels is located outside of all the APZs.

3.9 Socioeconomics

Employment in the four-county area is concentrated in the services, manufacturing, retail, and government sectors. WPAFB, with 20,364 employees in 2001, provides a major source of employment in the four-county area (WPAFB, 2003).

It is estimated that 22,085 secondary jobs have been created in private industry in the four-county region surrounding WPAFB. WPAFB awards numerous contracts every year to local businesses. In Fiscal Year (FY) 2001, for example, contract activity in the economic impact region exceeded \$742 million (WPAFB, 2003).

3.10 Transportation/Traffic

The existing dog kennels are located on Mitchell Drive and are bordered by Riverview Road. Although traffic counts have not been performed for Mitchell Drive, the volume of traffic is generally low (e.g., less than 50 vehicles per day) and sporadic (WPAFB, 2004e). The vehicles that typically use Mitchell Drive include government and personal vehicles associated with the dog kennel facility, recreational and personal vehicles associated with FAMCAMP, and trucks associated with the MSA. The nature and volume of traffic in this area is not expected to increase in the foreseeable future. No major roadwork is scheduled.

3.11 Environmental Justice

Executive Orders 12898 and 13045 mandate that federal agencies identify disproportionately high and adverse human health or environmental effects on minority and low-income populations and children. Minority or low-income individuals or communities would not be disproportionately and/or adversely affected by the implementation of the Proposed Action. Additionally, no disproportionate environmental health or safety risks to children would occur as a result of implementation of the Proposed Action. The site of the proposed action is within the base perimeter fence in areas away from housing units and schools. No family housing units are planned and will likely never be planned in the vicinity of the proposed action.

3.12 Environmental Toxics

A limited asbestos survey has been conducted of the existing MWD kennel facility, and a total of ten locations were sampled. Asbestos was identified at four of these locations, as indicated in the following table:

Material Description	Location	Friable?	Pos., Neg., or Trace?
9-inch brown floor tile with white streak pattern and underlying adhesive	Storage room	No	Positive
Thick white coating (1/4 inch) on upper walls and portions of ceilings	North and south sides of kennel (rooms 47.63-H and 47.62H)	Yes	Trace
Thick semi-textured paint on concrete-block kennel divider walls	Throughout kennel. Each divider is 4' high	No	Trace
Exterior gray window frame caulk	Exterior sides of windows	No	Positive
12-inch gray floor tile with white streak pattern and underlying adhesive	Front office area, including rooms 26-L, 197.03 AD, 95 AD, and 49.08-R.	No	Negative
18x18" black rubber/vinyl floor covering with raised circle pattern and underlying adhesive	RF3 covers RF1 in the front foyer (26-L) and restroom	No	Negative
Carpet adhesive	Break room and office (Rooms 197.03 AD and 95 AD)	No	Negative
Vinyl cove base and underlying adhesive	Through office area	No	Negative
Joint compound on nail heads and seams of drywall walls and ceilings	Various areas, primarily ceilings throughout building	No	Negative
Grey epoxy coating on concrete floors	Throughout kennel	No	Negative

Further asbestos sampling would be accomplished during the facility design phase.

Sampling for lead based paint has not been conducted at this facility. Therefore, all paint is presumed to contain lead until it is tested during an environmental survey or by the construction contractor and demonstrated to be lead free. No other toxics, such as PCBs or mercury, have been identified in this facility, but a detailed

environmental survey is required to be conducted prior to the construction phase.

4.0 Potential Environmental Impacts

4.1 Soils

4.1.1 Proposed Action

The land at the existing dog kennel facility is relatively flat. Preparing the perimeter of the building for the limited expansion prior to construction would require minimal grading and filling. In addition, there would not be any subsurface building construction that would require extensive excavation. Therefore, the overall impact to soils in the vicinity would be minimal. However, during construction and until vegetative cover can be reestablished, erosion control measures in accordance with base specifications for construction projects would be implemented. Soil erosion and siltation control measures would include the use of silt fencing, straw bales, and/or hydro-mulching in and adjacent to construction areas.

4.1.2 No Action

Soils would not be impacted under the No Action Alternative since no construction would occur.

4.2 Floodplain Issues

4.2.1 Proposed Action

The existing dog kennel facility is at an elevation of approximately 810 feet MSL, which is within the Mad River 100-year floodplain elevation of 814.3 feet MSL. The flood control basin behind Huffman Dam is regulated by the MCD to limit land use and construction on the property. The MCD has the right to back water upon and over the property behind Huffman Dam. Also, structures or additions of any type shall not be erected more than 5 feet below the spillway elevation of Huffman Dam (835 feet MSL) except by authorization by MCD (MCD, 1996). WPAFB applied for and was issued a Retarding Basin Permit (MCD, 1999).

Of additional concern is the potential reduction of floodplain management capacity by the filling with materials from outside of the basin. Federal regulations stipulate that in the case of a “significant encroachment” on the floodplain by a proposed project, a finding of an “only practicable alternative” is required. The proposed action is a renovation and small expansion of an existing structure that would not restrict the flow of floodwater, would not impede water percolation into the soil, and would not significantly reduce the flood storage capabilities of the retarding basin. Therefore no significant encroachments are expected to occur on the floodplains as a result of implementation of the proposed action. A copy of the MCD approval letter for the expansion and renovation of the dog kennels is provided in Appendix C.

4.2.2 No Action

Floodplain management would not be impacted under the No Action Alternative since no construction would occur.

4.3 Air Quality

4.3.1 Proposed Action

In the short-term, there would be minor, negative impacts to air quality. Impacts from expansion and renovation of the existing dog kennels include the generation of fugitive dust and particulates from the removal and grading of soil. Although the estimated area for the project is approximately 3,300 SF (0.08 acres), the final design for the facility has not yet been established. The specifications for excavation and regrading of the soil surrounding the facility have not been completed. Based on a worst-case scenario, however, particulate emissions of 0.12 tons per year (tpy) were estimated for disturbance of 3,300 SF over a six-month period. This amount is approximately 0.84 percent of the estimated normal baseline (13.64 tpy) at WPAFB (WPAFB, 2003a).

In addition, there would be minor, short-term emissions from vehicles that would travel in the construction area. During construction, dust suppression measures would be used to minimize fugitive dust emissions.

The VOC and/or NO_x emissions (if any) from fuel combustion in construction equipment are expected to be negligible and do not warrant a detailed emissions estimation. The VOC and NO_x emissions will be below the de minimis emission levels of 50 tons per year for VOCs and 100 tons per year for NO_x. Therefore, in accordance with 40 CFR 93.153(c)(1), a conformity determination would not be required.

4.3.2 No Action

No impacts to air quality would occur under the No Action alternative since no construction would occur.

4.4 Water Resources

4.4.1 Proposed Action

Although the groundwater in the vicinity of the dog kennel is 6 to 10 feet below ground surface, construction activities will not impact it. Soil in the vicinity of the dog kennel would be temporarily disturbed during construction. Soil erosion into the adjacent drainages and potentially the Mad River would be controlled to acceptable levels by following standard erosion controls as required by base specifications for construction projects resulting in a short-term minor impact to surface water. In addition, the relatively small expansion of the existing structure would generate only a minimal amount of additional runoff water from the roof.

4.4.2 No Action

Under the No Action Alternative, impacts to water resources would not be expected since no construction would occur.

4.5 Natural Resources

4.5.1 Proposed Action

The United States Fish & Wildlife Services (USFWS) confirmed that the proposed action project area lies within the range of the eastern massasauga rattlesnake, a federal-candidate species. The massasauga is very mobile and may travel through unsuitable habitat to reach adjacent habitat parcels. The USFWS guidelines for ensuring that no adverse effects occur to the massasauga shall be followed, including examining the project area daily for snakes. If any eastern massasaugas are found, all work shall cease and the USFWS will be notified immediately. Some vegetation around the dog kennels would be disturbed or removed during site preparation. However, impacts would be minor because the vegetation in this area is common throughout the base and the area would be landscaped with similar vegetation species (e.g., grasses) after construction and renovation activities were completed.

4.5.2 No Action

Natural resources would not be impacted under the No Action alternative since no construction would occur.

4.6 Noise

4.6.1 Proposed Action

Because the project site is located on an active Air Force base, noise levels associated with aircraft are experienced daily. The dog kennels are located in the 65-70 dB noise zone. To put this in context, typical sound pressure levels range from about 20 dB in a very quiet rural area to between 50 and 70 dB in towns during the daytime. It has been determined from occupational studies that sound levels below 75 dB will not engender permanent hearing loss, even at high frequencies. At higher sound levels, the amount of hearing loss is directly proportional to sound level for comparable durations. A noise level of 85 dBA for an 8-hour daily exposure is potentially damaging. Therefore, the normal noise levels to which the MWDs will be exposed are typical of towns, and are not high enough to damage their hearing. Impacts on ambient noise levels from the work area would result from the operation of heavy machinery and equipment. There would be a minor, negative short-term impact from noise at the project site during the construction phase. The new HVAC system will be designed to minimize noise impacts to the MWDs, and consequently to the nearby FAMCAMP area as well. Impacts would be minor because these activities would be carried out during normal working hours. There would be potential minor, long-term impacts (from barking) due to the increase in the number of dogs and the expanded kennels. In accordance with the Site Planning Chapter of the "Design Guide for Military Working Dog Facilities," kennels should not be located in urbanized, busy areas of the base for two reasons. One, noise from the surrounding areas affect the MWDs' rest, and two, the noise from the MWDs create a distraction to people working in the area. The current site minimizes both potential impacts as much as possible. The vegetation at this location creates a sound buffer, which has proven very effective. The earth mounds covering the vaults at the Munitions Storage Area provide an additional buffer for the existing kennels. Although the number of dogs housed at this facility has nearly doubled since 9/11, there have been no reported problems due to noise in the FAMCAMP area (Lynch, 2005). Noise from aircraft occurs during daylight hours when the dogs are out working in the field. There are

quiet hours for the airfield and none of the base air traffic occurs directly over the kennels. At night, when the dogs are sleeping, noise from aircraft is minimal because the planes are not flying. Therefore, aircraft noise from the airfield has little or no impact to the MWDs during that period when the dogs are at rest.

4.6.2 No Action

There would be no impacts under the No Action alternative since no construction would occur.

4.7 Health and Safety

4.7.1 Proposed Action

Because construction workers for the proposed renovation and expansion would be responsible for complying with standard operating procedures and applicable health and safety regulations (Table 1.4-1), no impacts to health and safety would be expected. In addition, “digging clearances” would be obtained from the Department of Civil Engineering prior to excavating soil.

Clearly identifying the construction zone and prohibiting access to unauthorized individuals would minimize impacts to health and safety of nearby personnel. Use of cranes and other high-profile equipment would require a “spotter” when operating near any overhead hazards.

The dog kennels are located outside of current Explosive Safety Zones for the MSA (WPAFB, 2004b). The location of the dog kennels is technically acceptable. The risk of damage from an explosion at this facility is low.

A worst-case scenario could result in damage to approximately 5 percent of the structure and shattering of unhardened glazing on the glass, especially glazing that faces the MSA. In the event of a worst-case mishap, there is a small chance of injury or death to personnel or dogs in open areas.

To reduce risks from explosions, the following optional protective standards could be implemented:

- Expanding the facility in the direction away from the MSA.
- Locating windows facing away from the MSA.
- Hardening the glazing in the rest of the facility to at least 1.2 pounds per square inch (psi) over pressure.
- Using substantial construction materials (e.g., brick/block vice frame and siding).

Although most of the materials (e.g., munitions, explosives) are transported by truck through the gate on the backside of the MSA, Mitchell Drive serves as an alternate route (WPAFB, 2004b). Risks of fire and explosion, however, are reduced because the quantities that can be transported via this route are limited.

The dog kennels are located within the 100-year floodplain and may experience some flooding. In cases of flooding, an evacuation plan would be in place.

4.7.2 No Action

No impacts to health and safety would occur under the No Action alternative since no construction would occur.

4.8 Land Use

4.8.1 Proposed Action

Land use would not change at the site of the dog kennels. Therefore, the proposed action would have no impact on land use.

4.8.2 No Action

The No Action alternative would have no impact on land use since no construction would occur.

4.9 Socioeconomics

4.9.1 Proposed Action

Nominal, temporary socioeconomic impacts could occur during construction activities. Contractors could benefit from employment and income through contracts associated with expansion and renovation of the existing dog kennels.

4.9.2 No Action

The No Action alternative would have no effect on socioeconomics since no construction would occur.

4.10 Transportation/Traffic

4.10.1 Proposed Action

There would be minor short-term impacts due to construction-type vehicles using roadways to the designated site (Riverview and Mitchell Roads).

4.10.2 No Action

The No Action alternative would have no effect on transportation/traffic since no construction would occur.

4.11 Environmental Justice

4.11.1 Proposed Action

There is little potential for the proposed action to have a disproportionately high adverse human health or environmental effect on low-income and minority populations and children that are located outside the boundaries of WPAFB. There would be no substantial economic ramifications resulting from the proposed action. The absence of nearby populations (including low-income and minority populations), schools, and the limited scope of the proposed action, and resulting minimal effects do not present conditions for an Environmental Justice issue.

4.11.2 No Action

There would be no Environmental Justice issues with the No Action alternative since no construction would occur.

4.12 Environmental Toxics

4.12.1 Proposed Action

The proposed addition to the existing MWD kennel facility will undoubtedly disturb asbestos containing materials (ACM). A limited asbestos survey was conducted at the existing MWD facility (F/34053) that has been proposed for renovation and ten separate locations within the facility were sampled. Asbestos containing materials were present at four of the locations. A comprehensive asbestos survey will be conducted prior to demolishing any walls or other structural changes required to tie in to the new addition. All ACM will be handled in accordance with the WPAFB asbestos specification. If asbestos abatement is required, a licensed abatement contractor will be used, with personnel certified by the Ohio Department of Health.

The detailed environmental toxics survey of this facility that will be completed prior to start of construction will determine the presence of lead based paint. The OSHA Lead Construction Standard, 29 CFR 1926.62 and the WPAFB lead specification are in effect whenever materials are disturbed that contain any amount of lead. This requires contractors disturbing painted or coated surfaces to institute medical surveillance, training, engineering controls, worker protection measures, and employee monitoring until monitoring results per the lead paint standard demonstrate that employee exposure is below the action level and permissible exposure limit. The contractor will be responsible for collection of all lead paint removal wastes and proper storage of that waste on site. Paint wastes (chips, etc.) will be turned over to 88 ABW/CEV for proper disposal. Other toxics identified during the survey will be handled in accordance with the appropriate base specification. Given the detailed methods set up to handle dealing with toxics on base and the regular inspection of contractors when performing this type of work, the proposed action would result in minimal potential for either worker exposure to toxics or for a release of these toxics into the surrounding environment.

4.12.2 No-Action Alternative

The no-action alternative would not involve the disturbance of any environmental toxic materials. Therefore, there would be no potential for worker exposure to such toxics or for an environmental release of such toxics to occur.

4.13 Cumulative Impacts

Cumulative effects are those which may result from the incremental impact of the federal action (renovation and expansion of the dog kennels) when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such actions (See 40 CFR § 1508.7).

No other actions are known to be occurring during the timeframe of the expansion and renovation of the dog kennels in the vicinity of the site or at the nearby FamCamp (WPAFB, 2004 a,b,c). There have, however, been other projects planned for the Mad River floodplain. The enclosure of Open Ditch #5 has already occurred. This

project does not prohibit the backing up of water onto the base, nor does it lead to additional run-off. Therefore, it has resulted in no discernable impact to the floodplain. A new hangar is being planned near the Huffman Prairie Flying Field to house a replica of the Wright B Flyer. This new facility will be smaller than the facilities that were part of the Combat Arms Training Facility which are being demolished. As a result, less net run-off will be generated if the existing facilities are removed and the new facility is constructed. Therefore, cumulative impacts would not be expected from implementation of the Proposed Action or the No Action alternative.

4.14 Unavoidable Adverse Effects

If the proposed action were implemented, there would be a commitment of soil that is excavated as part of the site preparation/construction work. Impacts to vegetation would be minor because the species types are common to the base (i.e., ordinary vegetation) and the areas excavated would be re-seeded/landscaped. Minor impacts from noise would slightly affect passers-by, nearby workers, and nearby campers. The increase in noise would be primarily due to construction/excavation equipment. The noise would only exist during working hours and would end at the completion of the operation. Negligible increases in traffic would occur during the proposed action.

4.15 Relationship of Short-Term Uses and Long-Term Productivity

Currently, the military working dog facility is inadequate to meet increased mission requirements. By expanding and renovating the facility, adequate office and training space, storage for deployment equipment, kennel capacity, dog kennel configuration, and heating ventilation and air conditioning would be provided to meet the increased mission requirements.

4.16 Irreversible and Irretrievable Commitments of Resources

CEQ regulations in 40 CFR 1502.16 require that an agency identify any irreversible or irretrievable commitments of resources that would be involved in the proposed action, should it be implemented. Capital, energy, materials, and labor would be required for the proposed action. These resources are not retrievable.

5.0 List of Preparers

The following individuals assisted in the preparation of or provided background information for this EA:

<u>Name/Expertise</u>	<u>Role</u>	<u>Affiliation</u>
Ajay Bahri Air Quality	Report Preparation	Shaw Environmental, Inc.
Teresa Carleton NEPA Procedures, Biology	Report Preparation	Shaw Environmental, Inc.
Suzette Cortina Biology	Background, Maps	Shaw Environmental, Inc.
Cynthia Hassan NEPA Procedures	Project Manager	Shaw Environmental, Inc.
Gregory Plamondon Geology	Report Preparation	Shaw Environmental, Inc.
Rajib Sinha Engineering	Senior Review	Shaw Environmental, Inc.
Connie Strobbe/Tom Perdue NEPA	Document Revisions	88 ABW/CEVO Wright-Patterson AFB

6.0 List of Persons Contacted

Several persons were contacted or consulted during the preparation of the EA, the persons contacted are listed below:

<u>Name</u>	<u>Role</u>	<u>Affiliation</u>
Jo Anderson	AICUZ Program	88 ABW/CECX
Richard Cunningham	Safety	88 ABW/SEW
Pat Curren	Project Designs/Plans	88 ABW/CECP
Richard Doran	Floodplain	Miami Conservancy District; Dayton, OH
Dr. Jan Ferguson	Cultural Resources	88 ABW/CEVO
Butch Grieszmer	Natural Resources	Ohio Department of Natural Resources; Division of Natural Areas & Reserves; Columbus, OH
Brian Hoppy	Noise/C-5 Conversion	e ² M
Douglas Hulings	Traffic/Transportation	88 ABW/CECP
Mary Knapp	Threatened and Endangered Species	U.S. Fish and Wildlife Services
Ken Lammers	Threatened and Endangered Species	U.S. Fish and Wildlife Services
Ann Lynch	FAMCAMP	88 MSG/SVRP
Tom Perdue	EIAP Program Manager	88 ABW/CEVO

7.0 References

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Wright-Patterson Air Force Base (WPAFB), 2004c, Personal communication between Pat Curren (WPAFB) and Cynthia Hassan (Shaw Environmental, Inc.), 20 May.

Wright-Patterson Air Force Base (WPAFB), 2004d, Personal communication between Jo Anderson (WPAFB) and Cynthia Hassan (Shaw Environmental, Inc.), 26 May.

Wright-Patterson AFB, 2004e, Personal communication between Douglas Hulings (88 ABW/CECP) and Cynthia Hassan (Shaw Environmental, Inc.), 9 June.

Wright-Patterson AFB, 2004f, Personal communication between Dr. Jan Ferguson (88 ABW/EMO) and Cynthia Hassan (Shaw Environmental, Inc.), 10 June.

Appendix A
Correspondence with the
Ohio Department of Natural Resources



Shaw Environmental, Inc.

Shaw Environmental, Inc.

5050 Section Avenue
Cincinnati, OH 45212-2025
513.782.4700
Fax: 513.782.4807

May 26, 2004

Heritage Data Services
Division of Natural Areas and Preserves
Ohio Department of Natural Resources
Fountain Square, Building F
Columbus, Ohio 43224

Request for Data for Proposed Project at Mitchell Drive, Area C
Wright-Patterson Air Force Base, Ohio

Dear Mr. Grieszmer:

The purpose of this letter is to request information from the Natural Heritage Program for State and Federally-listed threatened or endangered plants and animals in the vicinity of Mitchell Drive at Wright-Patterson Air Force Base (WPAFB). Under contract to WPAFB, we are currently preparing an environmental assessment (EA) to address potential impacts associated with the expansion and renovation of Building 34053 and the associated dog kennels (i.e., the military working dog area). The expansion and renovation activities are needed due to the increase in mission requirements. Currently, training room space, storage space, kennel capacity, kennel configuration, and heating and air conditioning are inadequate to meet mission requirements. Impacts associated with the expansion and renovation of the dog kennels will be addressed in the EA. The intent of the EA is to satisfy requirements under the National Environmental Policy Act (NEPA) of 1969.

The geographic location of the proposed construction site is Greene County, R.8, T.3 and is depicted in Figures 1 and 2. The location of Building 34053 and the dog kennels is along Mitchell Drive just north of and adjacent to the Bass Lake Recreational Area. The site is located in a land use area that is designated as "Open Space." Designated land uses in the vicinity of the dog kennels include: Outdoor Recreation, Industrial, and Aircraft Taxiways/Operation & Maintenance. Natural resources in the vicinity of the site included wooded areas, Bass Lake, and the Mad River (Figure 1).

The renovated and expanded dog kennel facility would consist of approximately 3,300 square feet with a concrete foundation and floor slab, masonry walls, and roof. The facility would include a training room, offices, storage areas, a veterinary room, a kennel area, and isolation kennels. Activities associated with construction would include site preparation, construction and renovation of the building and kennel areas, and landscaping.

A form for a Data Request has been attached. We would appreciate any information from your database that applies to our project area. Please expedite our request, if possible, and contact me at 513/782-4967 if you have any questions or require further information. Thank you for your attention to this request.

Sincerely,

SHAW ENVIRONMENTAL, INC.

A handwritten signature in cursive script, reading "Cynthia A. Hassan". The signature is written in dark ink on a light background.

Cynthia A. Hassan
Project Manager

cc: T. Perdue (88 ABW/EMO, WPAFB)

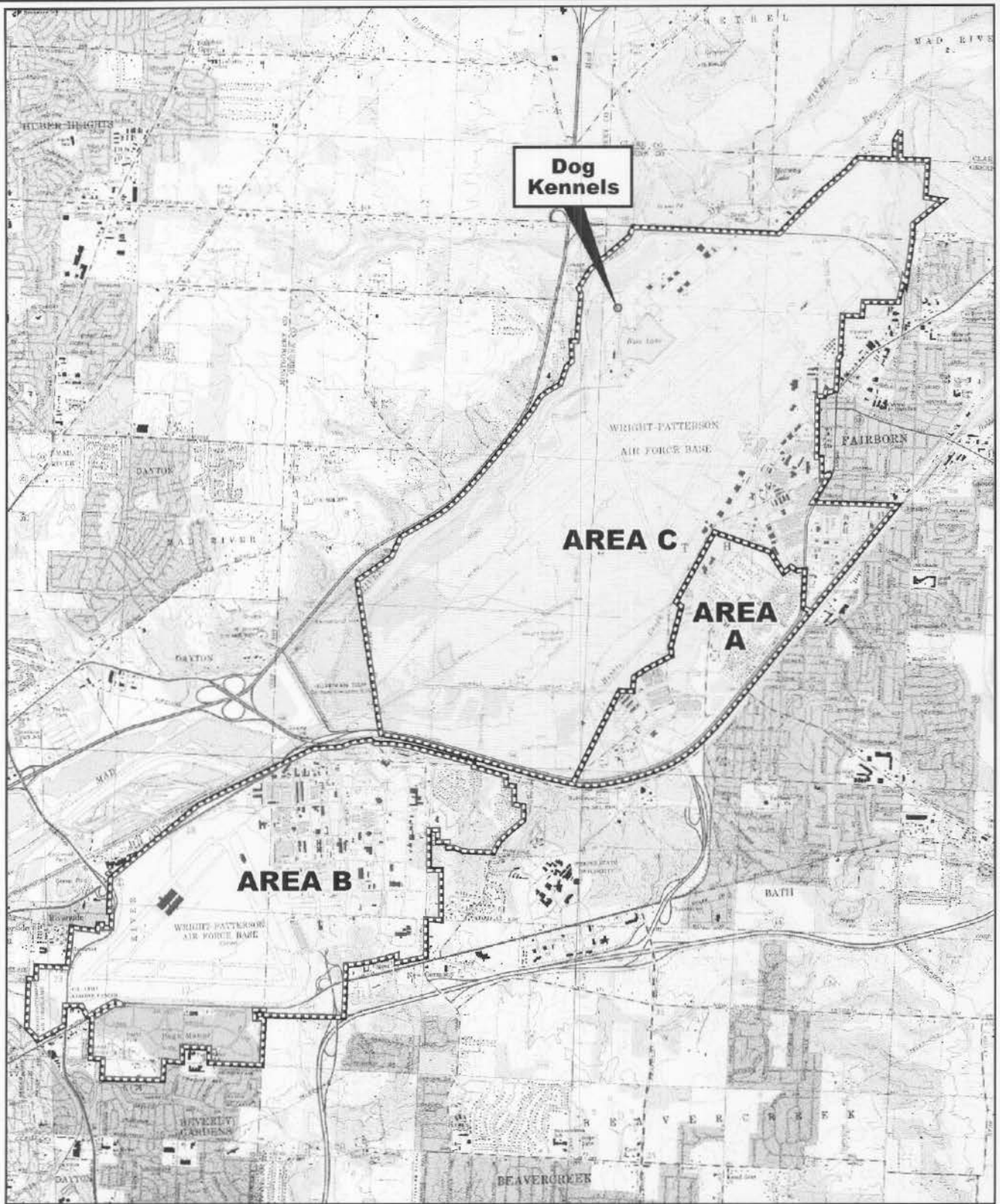
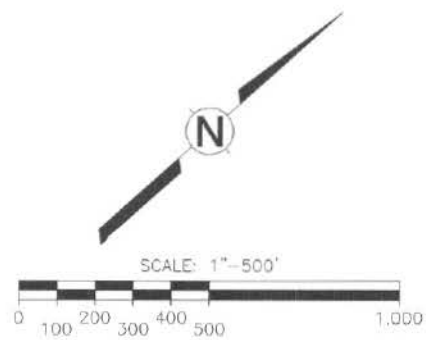
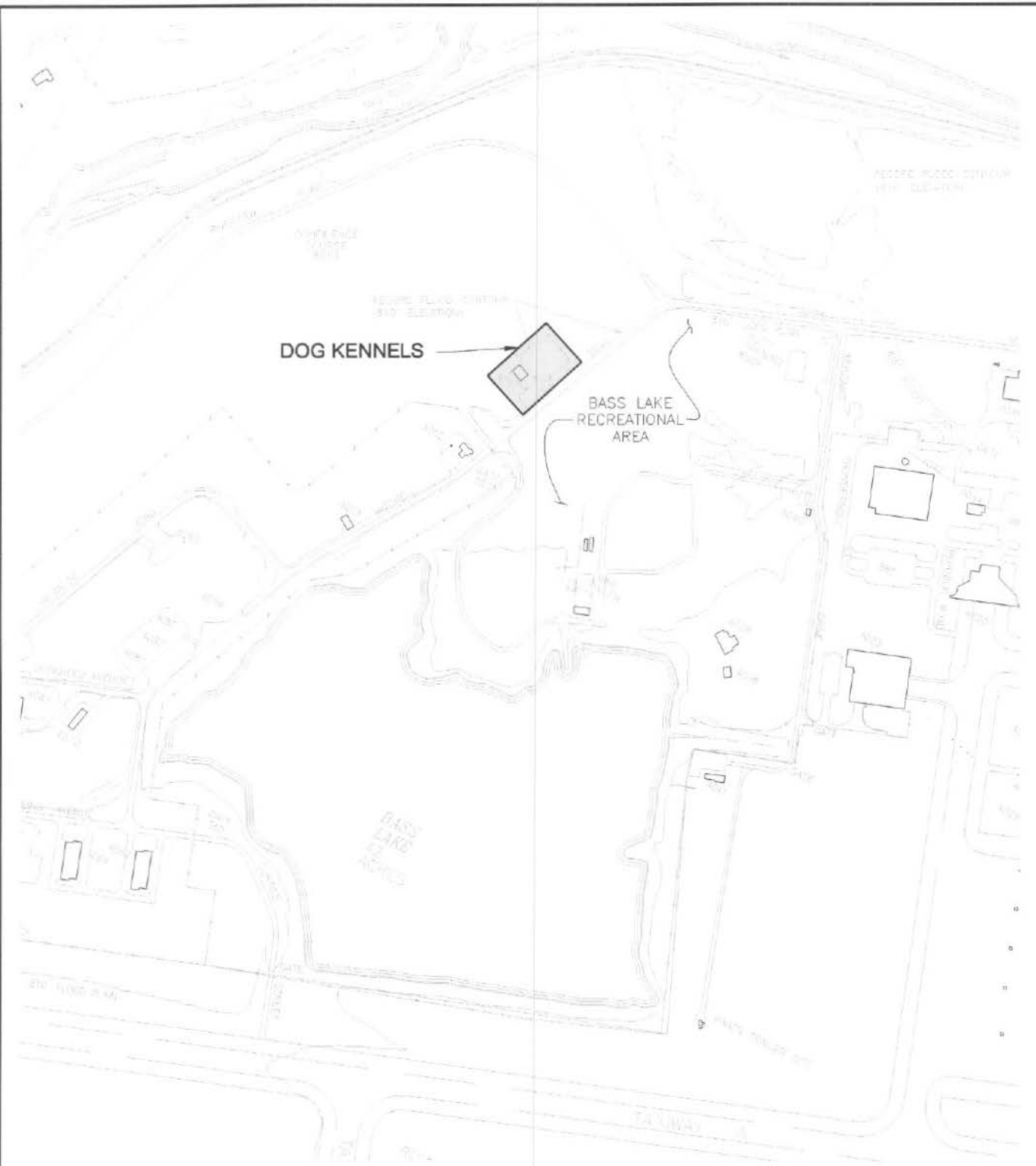



Figure 1
Location of the Dog Kennels
and Proposed Expansion and Renovation
Wright-Patterson Air Force Base
Dayton, Ohio



 Shaw™ Environmental, Inc.	Wright-Patterson Air Force Base Dayton, Ohio
	<p align="center">Figure 2 Site of Existing Dog Kennels and Proposed Expansion and Renovation</p>

DATA REQUEST
OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF NATURAL AREAS AND PRESERVES
HERITAGE DATA SERVICES
1889 FOUNTAIN SQUARE COURT, BUILDING F-1
COLUMBUS, OHIO 43224
PHONE: 614-265-6453; FAX: 614-267-3096

INSTRUCTIONS:

Print this form from your browser. Then fill out both pages, sign it and return it to the address or fax number listed above along with: (1) a letter formally requesting data and describing your project, and (2) a map detailing the boundaries of your study area. A photocopy from the pertinent portion of a USGS 7.5 minute topographic map is preferred but other maps are acceptable. Our turnaround time is two weeks, although we can often respond more quickly.

FEES:

Fees are determined by the amount of time it takes to complete your project. The charge is \$25.00 per 1/2 hour with a 1/2 hour minimum. We can perform a data search manually or by computer. The Heritage Data Services staff will determine the most cost-efficient method of doing your search. A cost estimate can be provided upon request. Unless otherwise specified, an invoice will accompany the data services response.

This request is being submitted by: __ fax _X_ mail __ both

Date: 5/25/04

Your Agency/Organization: Shaw Environmental & Infrastructure, Inc.

Your Name/Title: Cynthia A. Hassan, Project Manager

Address: 5050 Section Avenue

City/State/Zip: Cincinnati, OH 45212-2025

Phone/Fax: 513/782-4967 Fax: 513/782-4807

Project Name/Number: Environmental Assessment (EA) for Expansion and Renovation of
Dog Kennels, Wright-Patterson Air Force Base, Ohio

Project is located on the following USGS 7.5 minute topographic map(s):

Fairborn Quad, R.8, T.3

If there is a program or contracting agency requiring this information, please give the name and phone number of a contact person:

Thomas Perdue, 88 ABW/EMO, WPAFB 937/257-5532

The Natural Heritage Data Base contains records for the categories of species and features listed below. Check the appropriate item/s to indicate your selection.

PLANTS: ☐ Federal Status Only
☐ State Legal Status Only
☐ Rare (non-legal status)
☒ All of the above

ANIMALS: ☐ Federal Status Only
☐ State Legal Status Only
☐ Rare (non-legal status)
☒ All of the above

PLANT COMMUNITIES: ☒ All
☐ Wetlands Only
☐ Other _____

OTHER FEATURES: ☐ Geologic Features
☐ Breeding/Non-breeding Animal Concentrations
☐ Champion Trees
☐ State Nature Preserves and Natural Areas
☐ State Wild, Scenic and Recreational Rivers
☐ State Parks, Forests, Wildlife Areas
☒ All of the above
☐ Other _____

Besides name, location and status, specify any additional information you need:

None.

The area you want to search: ☐ study area as outlined on the map
☒ study area plus 1/2 mile radius
☐ study area plus 1 mile radius
☐ other _____

How will the information be used:

The name, status, and location of each species will be published in an EA that is being performed to satisfy requirements under the National Environmental Policy Act (NEPA.)

The information supplied above is complete and accurate. Any material supplied by the Natural Heritage Data Base will not be published without prior written permission and without crediting the Division of Natural Areas and Preserves as the source of the material.

Your Signature: _____

Cynthia A. Hansen

Dear Ms. Hassan:

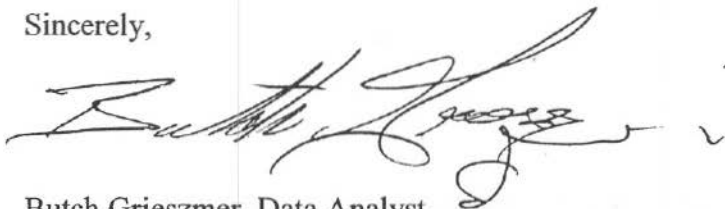
After reviewing our Natural Heritage maps and files, I find the Division of Natural Areas and Preserves has records of rare or endangered species within one half mile of the Shaw Environmental & Infrastructure, Inc. Environmental Assessment for the expansion and renovation of dog kennels project. The site is located in Sec. 33, Bath Twp., Greene Co., Fairborn Quadrangle. *Bartramia longicauda*, Upland Sandpiper, is Threatened in Ohio. *Juglans cinerea*, Butternut, is Potentially Threatened in Ohio. Becky Jenkins of the Division of Wildlife should be consulted regarding possible impacts to animal species. She can be reached at (614) 265-6631. The map I have included with this letter displays the locations of these records.

There are no existing or proposed state nature preserves at the project site. We are also unaware of any unique ecological sites, geologic features, breeding or non-breeding animal concentrations, champion trees, state parks, state forests, scenic rivers, or wildlife areas within the project area.

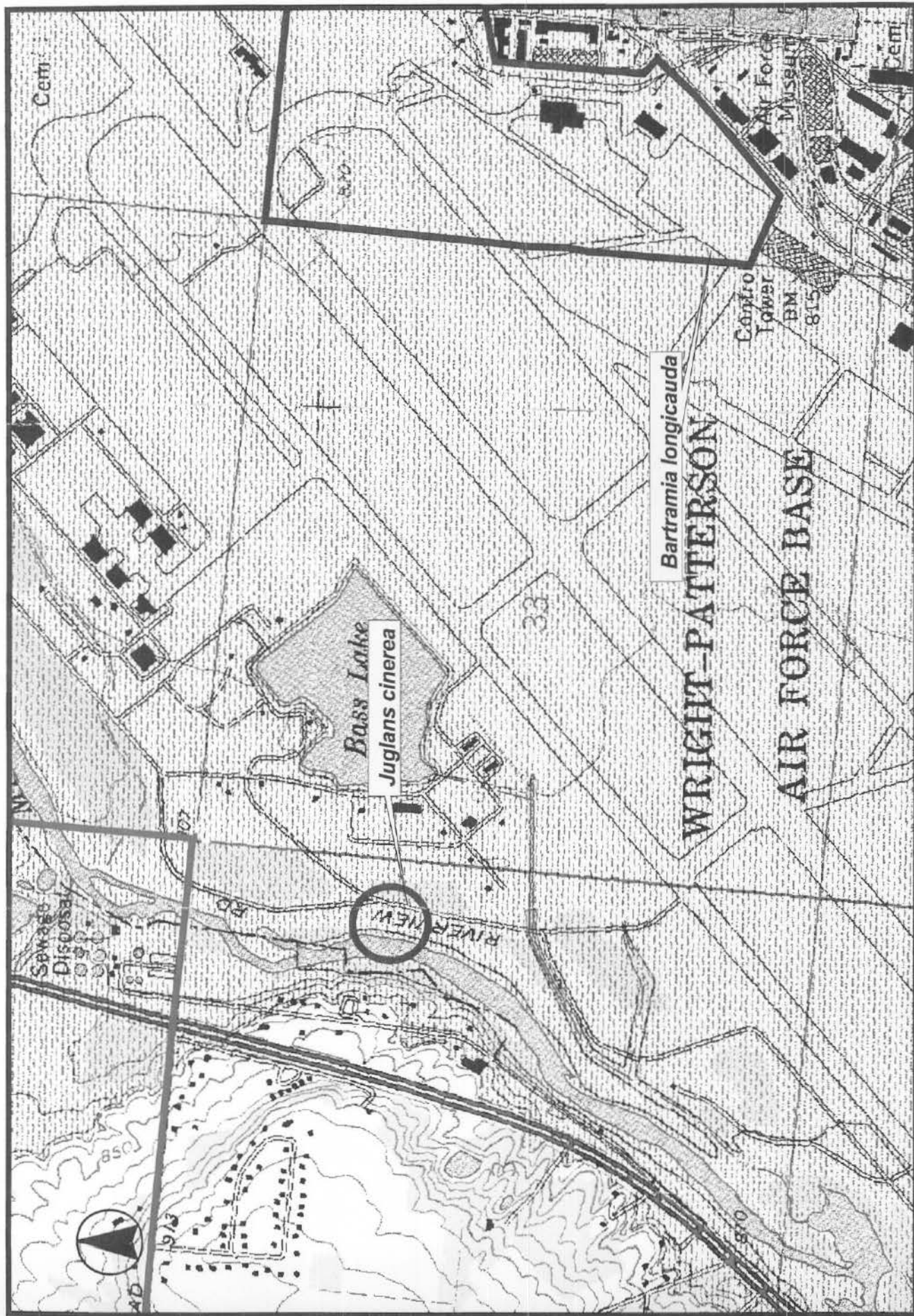
Our inventory program has not completely surveyed Ohio and relies on information supplied by many individuals and organizations. Therefore, a lack of records for any particular area is not a statement that rare species or unique features are absent from that area. Although we inventory all types of plant communities, we only maintain records on the highest quality areas. Also we do not have data for all Ohio wetlands. The Division of Wildlife has a statewide wetland inventory that can give you additional data. Their phone number is (614) 265-6300. For National wetlands Inventory maps, please contact Madge Fitak in the Division of Geological Survey at (614) 265-6576. Aerial photos may be obtained from ODOT at (614) 275-1369. USGS maps can be requested directly from the U.S. Geological Survey at 1-888-275-8747.

Please contact me at (614) 265-6409 if I can be of further assistance.

Sincerely,

A handwritten signature in black ink, appearing to read 'Butch Grieszmer', with a stylized flourish at the end.

Butch Grieszmer, Data Analyst
Resource Services Group



500 0 500 1000 Feet



Appendix B
Correspondence with the
U.S. Fish & Wildlife Service



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 88TH AIR BASE WING (AFMC)
WRIGHT-PATTERSON AIR FORCE BASE OHIO

88 ABW/EMO
5490 Pearson Road, Building 89
Wright-Patterson Air Force Base, OH 45433-5332

Mr. Ken Lammers, Acting Director
U.S. Fish and Wildlife Service
Ecological Services
6950 Americana Parkway, Suite H
Reynoldsburg, Ohio 43068-4132

Dear Mr. Lammers:

The U.S. Air Force is seeking informal consultation with the U.S. Fish and Wildlife Service in compliance with Section 7 of the Endangered Species Act for the proposed expansion and renovation of Building 34053 and the associated dog kennels (i.e., the military working dog area). The expansion and renovation activities are needed due to the increase in mission requirements. Currently, training room space, storage space, kennel capacity, kennel configuration, and heating and air conditioning are inadequate to meet mission requirements. Wright-Patterson Air Force Base (WPAFB) has initiated an environmental assessment (EA) for this project in accordance with the requirements of the National Environmental Policy Act (NEPA) of 1969. The geographic location of the proposed construction site is Greene County, R.8, T.3 (see attached figures).

The renovated and expanded dog kennel facility would consist of approximately 3,300 square feet with a concrete foundation and floor slab, masonry walls, and roof. The facility would include a training room, offices, storage areas, a veterinary room, a kennel area, and isolation kennels. Activities associated with construction would include site preparation, construction and renovation of the building and kennel areas, and landscaping.

The location of the dog kennels is along Mitchell Drive just north of and adjacent to the Bass Lake Recreational Area. The site is located in a land use area that is designated as "Open Space." Designated land uses in the vicinity of the dog kennels include: Outdoor Recreation, Industrial, and Aircraft Taxiways/Operation & Maintenance. Natural resources in the vicinity of the site included wooded areas, Bass Lake, and the Mad River (Figure 1).

I am requesting comment from your agency regarding the presence or absence of federal- and state-listed species that may be located within 0.5 miles of the proposed project location. Threatened and endangered species known to exist within the vicinity of the base include the Indiana bat (*Myotis sodalis*), bald eagle (*Haliaeetus leucocephalus*), eastern massasauga rattlesnake (*Sistrurus c. catenatus*), clubshell (*Pleurobema clava*, a mussel), and blazing star stem borer (*Papaipema beeriana*, a moth).

In addition, please comment on the presence or absence of areas of ecological concern including wetlands, national wild and scenic rivers, wildlife areas, wildlife refuges, wildlife management areas, and wildlife sanctuaries that may be located within the area likely to be disturbed by the project. The attached maps (see Figures 1 and 2) depict the location of the proposed project area. We have also contacted the ODNR's Division of Natural Areas and Preserves for a search of their Natural Heritage Database.

Please return your comments to me at the address located on the letterhead. If you have any questions, please call me at 937-257-5532. Thank you in advance for your time.

Sincerely,

A handwritten signature in black ink, reading "Thomas J. Perdue". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Thomas Perdue
EIAP Program Manager
Operations Branch
Office of Environmental Management

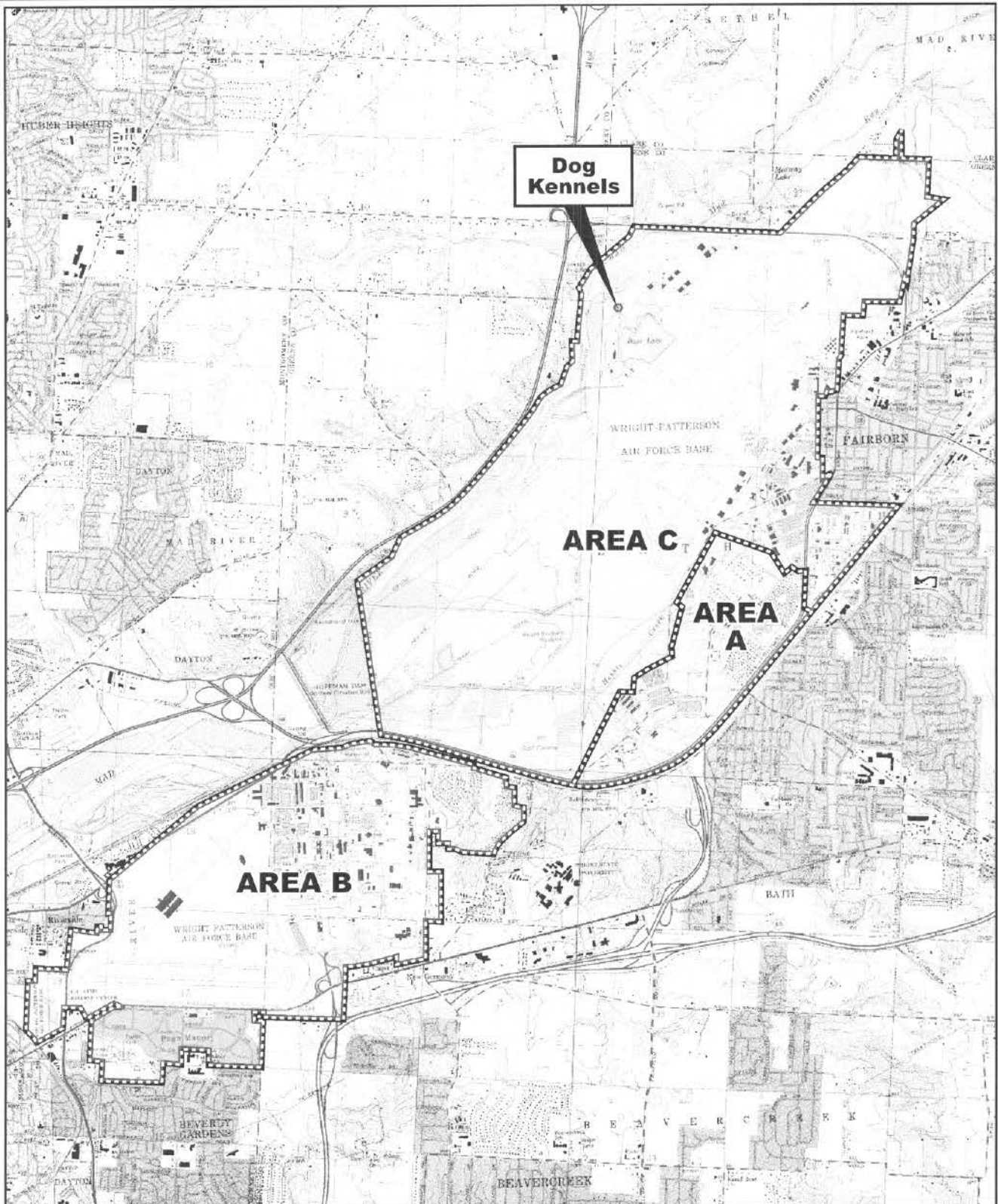
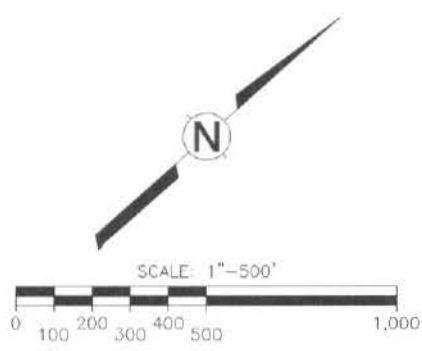
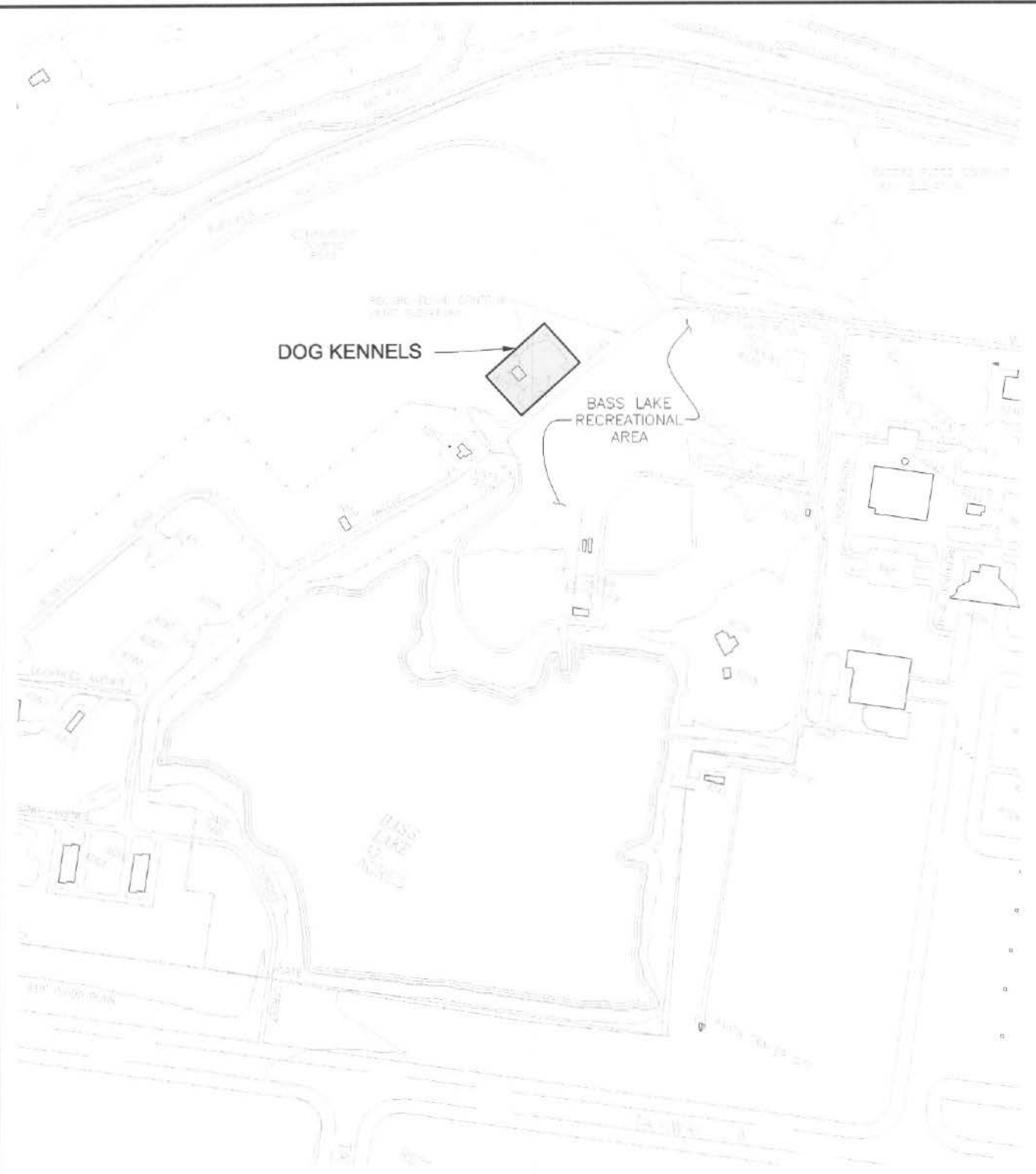



Figure 1
Location of the Dog Kennels
and Proposed Expansion and Renovation
Wright-Patterson Air Force Base
Dayton, Ohio

DRAWN BY	MSN	CHECKED BY	TC	5/24/04	DRAWING NUMBER	18-01.DWG
		APPROVED BY	CH	5/24/04		



 <p>Shaw Environmental, Inc.</p>	<p>Wright-Patterson Air Force Base Dayton, Ohio</p>
<p align="center">Figure 2 Site of Existing Dog Kennels and Proposed Expansion and Renovation</p>	



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services
6950 Americana Parkway, Suite H
Reynoldsburg, Ohio 43068-4127
(614) 469-6923/Fax: (614) 469-6919

June 30, 2004

Mr. Thomas Perdue
Dept. of the Air Force
88 ABW/EMO
5490 Pearson Road, Building 89
Wright-Patterson Air Force Base, OH 45433-5332

Dear Mr. Perdue:

This is in response to your May 27, 2004 letter requesting information we may have regarding the occurrence or possible occurrence of Federally-listed threatened or endangered species, as well as information on designated Wilderness areas or Wildlife Preserves within the vicinity of the proposed construction of an approximately 3,300 square foot dog kennel facility located along Mitchell Drive on Wright Patterson Air Force Base, Greene County, Ohio. The site is located in a land use area that is designated as "Open Space". There are no Federal wilderness areas, wildlife refuges, or designated Critical Habitat within the vicinity of the proposed sites.

In general, the Service recommends that proposed developments use best construction techniques to minimize erosion. Prevention of non-native, invasive plant establishment is critical in maintaining quality habitats. All disturbed areas should be mulched and revegetated with native plants. Biologists from this office are available to assist with selection of native plant seed mixes.

ENDANGERED SPECIES COMMENTS: The proposed project lies within the range of the **Indiana bat** (*Myotis sodalis*), a Federally-listed endangered species. Indiana bats are known to exist on WPAFB property, however, due to the type of habitat present on the site, it is unlikely that the project area provides habitat for the bat. Relative to this species, this precludes the need for further action on this project as required by the 1973 Endangered Species Act, as amended.

The proposed project lies within the range of the **clubshell mussel** (*Pleurobema clava*), a Federally-listed endangered species. The clubshell mussel is also known from WPAFB property, Little Miami River area. Due to the project location the project as proposed is not likely to adversely affect the clubshell mussel. Relative to this species, this precludes the need for further action on this project as required by the 1973 Endangered Species Act, as amended.

The proposed project lies within the range of the **eastern massasauga** (*Sistrurus catenatus*), a Federal candidate species. This species is known to occur on WPAFB property, within the vicinity of the Prime BEEF training area and adjacent golf course. This is south of the proposed project. The massasauga is often found in or near wet areas, including wetlands, wet prairie, or nearby woodland or shrub edge habitat. The Service believes that suitable habitat for the massasauga does not exist on the project site. However, the snake is very mobile and sometimes may travel through unsuitable habitat to reach adjacent habitat parcels. The project designers should notify all people that may be working on the project (including contractors, engineers, machine operators, etc) that the eastern massasauga exists on WPAFB, that the snake is poisonous and should not be handled, and that the snake is a protected species and should not be harmed or killed. The project area should be examined daily for snakes, and if any eastern

massasaugas are found, all work should cease and this office should be contacted immediately. Provided these guidelines are followed, the project, as proposed, is not likely to adversely affect the eastern massasauga. Relative to this species, this precludes the need for further action on this project as required by the 1973 Endangered Species Act, as amended.

Should additional information on listed or proposed species or their critical habitat become available or if new information reveals effects of the action that were not previously considered, this determination may be reconsidered. If project plans change or if portions of the proposed project were not evaluated, it is our recommendation that you contact our office for further review.

This technical assistance letter is submitted in accordance with provisions of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C.661 et seq.), the Endangered Species Act of 1973, as amended, and is consistent with the intent of the National Environmental Policy Act of 1969, and the U.S. Fish and Wildlife Service's Mitigation Policy.

If you have questions, or if we may be of further assistance in this matter, please contact Karyn Tremper at extension 13 in this office.

Sincerely,

A handwritten signature in black ink, appearing to read "Mary Knapp", with a long horizontal flourish extending to the right.

Mary Knapp, Ph.D.
Supervisor

Appendix C
Correspondence with the
Miami Conservancy District



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 88TH AIR BASE WING (AFMC)
WRIGHT-PATTERSON AIR FORCE BASE OHIO

88 ABW/EMO
5490 Pearson Road, Building 89
Wright-Patterson Air Force Base, OH 45433-5332

27 MAY 2004

Miami Conservancy District
38 E. Monument Avenue
Dayton, OH 45402-1210

Dear Sir/Madam:

In accordance with the Miami Conservancy District's (MCD) Building Restriction Policy, the U.S. Air Force is providing notification to the MCD with respect to the proposed expansion and renovation of the existing dog kennel and office space at Building 34053 in Area C at Wright-Patterson Air Force Base (WPAFB). The policy states that structures or additions of any type within the floodplain behind Huffman Dam shall not be erected more than five feet below the Huffman Dam spillway elevation [835 feet (ft) Mean Sea Level (MSL)] except by authorization from the MCD.

The dog kennel is located along Mitchell Drive, approximately 500 feet south of the intersection of Mitchell Drive and Riverview Road, and adjacent to the WPAFB Family Campground. The geographic location of the dog kennel is Greene County, R.8 north, T.3 east, in the northwest corner of Section 33, and is depicted in Figures 1 and 2 (attached). This location is at an elevation of approximately 810 ft MSL and is below the 100-year floodplain of the Mad River at Huffman Dam of 814.3 ft above MSL as established by the U.S. Army Corps of Engineers for WPAFB in 1994. The renovated facility will occupy a surface area of approximately 3,300 square feet.

WPAFB has initiated an environmental assessment (EA) for the project in accordance with the requirements of the National Environmental Policy Act of 1969. The EA will address the addition or loss of flood control capacity (if any), the generation of any additional runoff from the new facility (if any), and emergency procedures in the event of flooding. It is anticipated that the expansion and renovation of the facility will not impact floodplain management.

We would appreciate your input regarding the level of significance that the proposed project would have on the MCD. If you need more information or have comments on the proposed plan, please contact me at (937) 257-5532.

Sincerely,

A handwritten signature in black ink, appearing to read "Thomas Perdue". The signature is fluid and cursive, with the first name "Thomas" written in a larger, more prominent script than the last name "Perdue".

Thomas Perdue

EIAP Program Manager

Operations Branch

Office of Environmental Management

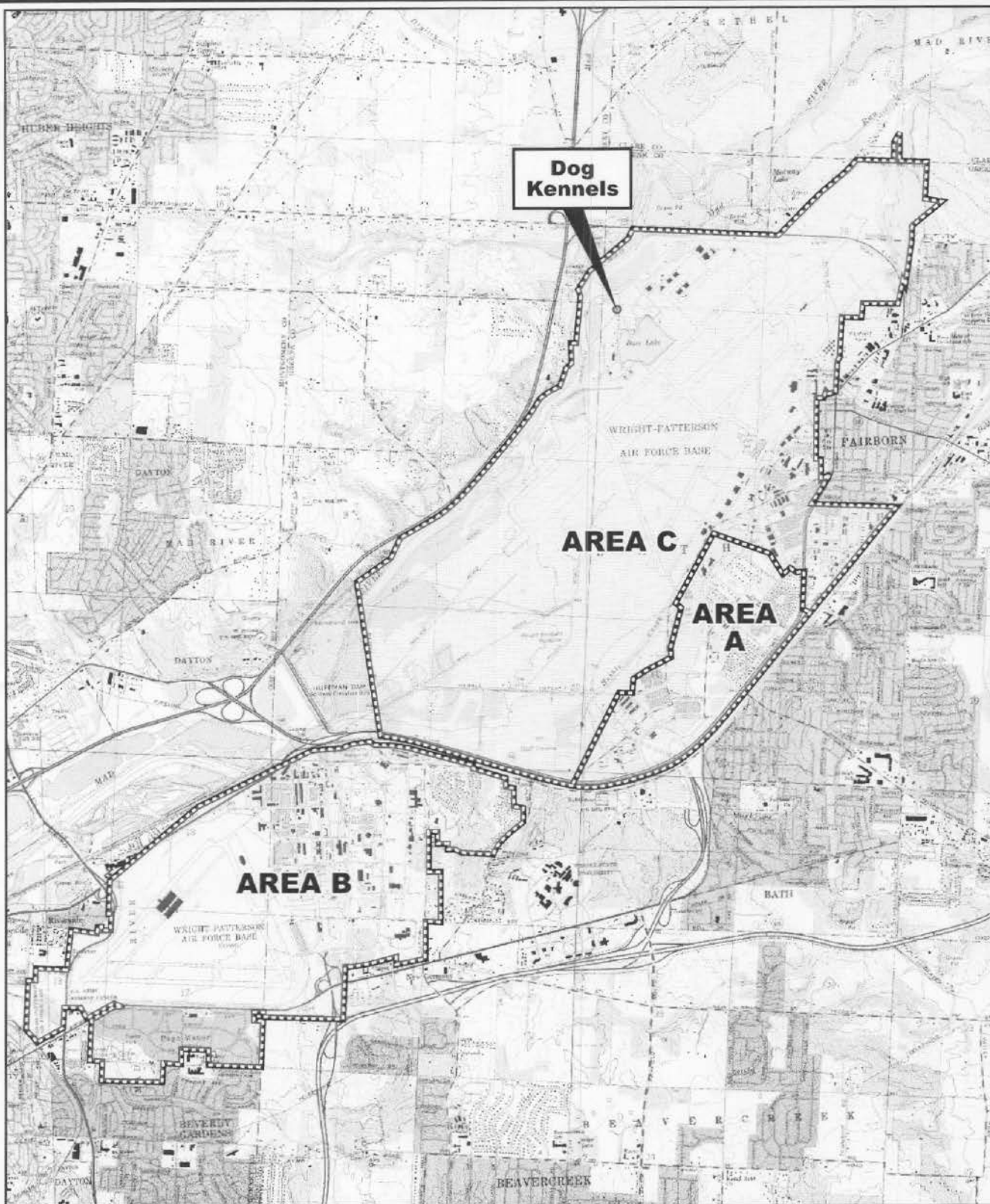
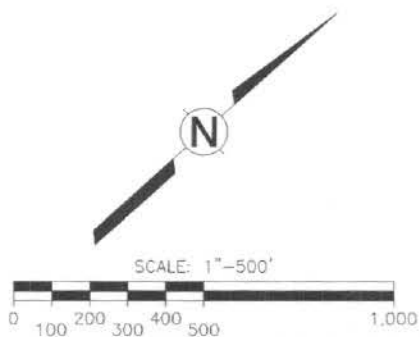


Figure 1
Location of the Dog Kennels
and Proposed Expansion and Renovation
Wright-Patterson Air Force Base
Dayton, Ohio

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	5/18/04	APPROVED BY	CH	5/24/04	NUMBER



Shaw
Environmental, Inc.

Wright-Patterson Air Force Base
Dayton, Ohio

Figure 2
Site of Existing Dog Kennels and
Proposed Expansion and Renovation



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DISTRICT

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June 7, 2004

Mr. Thomas Perdue
88 ABW/EMO
5490 Pearson Road, Building 89
Wright-Patterson Air Force Base, Ohio 45433-5332

Re: Huffman Retarding Basin, WPAFB, Dog Kennel

Dear Mr. Perdue:

Miami Conservancy District (MCD) has evaluated your recent request (copy enclosed) to complete expansion/renovation work on the existing Dog Kennel. The kennel is presently located along Mitchell Drive within the boundaries of Wright Patterson AFB. Based on the information provided the structure is located within the Huffman Retarding Basin below the minimum building elevation of 830.0.

In accordance with those rights (MCD Parcel No. 3246) retained by the Miami Conservancy District in MCD Sale No. 433, as recorded in Greene County Deed Book 133, Page 579 on March 14, 1925, the construction of any habitable structures at this site would be prohibited. However, as this is simply an addition to an existing animal shelter MCD has no objection to the proposed renovations.

If you have any further questions or need additional information please contact me at (937) 223-1278, Ext. 3219.

Very truly yours,

Richard L. Doran
Property Administrator

Enclosure

cc: Bill Bogan, Caretaker

File: WPAFB